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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,147	11/21/2003	Longin B. Greszczuk	BING-1-1042	2111
46020	7590	07/13/2005	EXAMINER	
BLACK LOWE & GRAHAM PLLC 701 FIFTH AVENUE, SUITE 4800 SEATTLE, WA 98104			ELLINGTON, ALANDRA	
			ART UNIT	PAPER NUMBER
			2855	
DATE MAILED: 07/13/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/719,147

Applicant(s)

GRESZCZUK, LONGIN B.

Examiner

Alandra Ellington

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on amendment filed on 4/14/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-10 and 13-17 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 11, 12 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Replacement drawing sheets</u> .       |

## **Non-Final Rejection**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show a *rigid member having a pair of curved outer surfaces adapted to be engaged against at least a portion of each of the first and second curved specimens* (claim 1) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1-2, 4, and 13-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Singhal (4,566,335).

a. With respect to claim 1, Singhal discloses an apparatus for tension-testing first and second curved specimens, comprising a first end member 20 adapted to be coupled to first end portions 11 of the first and second curved specimens 10,12; a second end member 20 adapted to be coupled to second end portions 11 of the first and second curved specimens 10,12; and an approximately rigid member 13 disposed between the first and second end members 20 and adapted to be disposed between the first and second curved specimens 10,12, the approximately rigid member 13 having a pair of curved outer surfaces 11 adapted to be engaged against at least a portion of each of the first and second curved specimens 10,12 between the first and second end portions 11,20 thereof (col. 2 lines 15-28 {Fig. 1}).

b. With respect to claim 2, Singhal discloses the apparatus of Claim 1, wherein the curved outer surfaces 11 of the approximately rigid member 13 include a layer of low-friction material (col. 1 lines 39-42, col. 2 lines 15-17).

- c. With respect to claim 4, Singhal discloses the apparatus of Claim 1, wherein the approximately rigid member 13 is a symmetrical member ({Fig. 1}).
- d. With respect to claim 13, Singhal discloses a method of simultaneously tension-testing a pair of curved specimens, comprising coupling a first end member 20 to first end portions 11 of the pair of curved specimens 10,12; coupling a second end member 20 to second end portions 11 of the pair of curved specimens 10,12; disposing an at least approximately rigid member 13 between the first and second end members 20 and between the pair of curved specimens 10,12; applying a test force that moves the first and second end members 20 apart; and simultaneously with applying the test force, at least partially engaging the pair of curved specimens 10,12 against a pair of curved outer surfaces 11 of the at least approximately rigid member 13 (col. 2 lines 15-28 {Fig. 1}).
- e. With respect to claim 14, Singhal discloses the method of Claim 13, at least partially engaging the pair of curved specimens 10,12 against a pair of curved outer surfaces 11 includes at least partially engaging the pair of curved specimens 10,12 against a layer of low-friction material on the outer surfaces (col. 2 lines 15-17).
- f. With respect to claim 16, Singhal discloses the method of Claim 13, wherein a symmetrical rigid member 13 is disposed between the first and second end members 20 ({Fig. 1}).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal (4,566,335) in view of Suga et al (5,303,634)(hereinafter Suga).

a. With respect to claims 3 and 15, Singhal discloses the claimed invention except for specifically teaching at least one of the first and second end members having a pull member adapted to receive the applied test force. Suga teaches a device with at least one of the first and second end members 4 having a pull member adapted to receive the applied test force (col. 3 lines 60-68, col. 4 lines 1-16 {Figs. 1b,2b}). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Singhal with the teachings of Suga to include at least one of the first and second end members having a pull member adapted to receive the applied test force for the purpose of varying the stress levels of the sample in order to predict how the test material will act in its intended environment (see Suga, col. 3 lines 45-55).

5. Claims 7-10 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal (4,566,335) in view of Rao (4,748,854).

- a. With respect to claim 7, Singhal discloses the claimed invention except for a test force being applied to pull the first and second support members in substantially opposite directions. Rao teaches a fatigue test apparatus with first and second support members 12,14,20,22 being pulled in substantially opposite directions (col. 4 lines 49-63 {Figs. 1-3}). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Singhal with the teachings Rao to include first and second support members being pulled in substantially opposite directions for the purpose of exerting a tensile load on the specimen (see Rao, col. 3 lines 1-5).
- b. With respect to claim 8, Singhal discloses the curved outer surfaces 11 of the approximately rigid member 10 including a layer of low-friction material (col. 2 lines 15-17).
- c. With respect to claim 9, Rao teaches at least one of the first and second support members 12,14,20,22 having a pull member adapted to receive the applied test force (col. 4 lines 49-66 {Figs. 1-3}).
- d. With respect to claim 10, Singhal discloses a symmetrical member 10 ({Fig. 1}).
- e. With respect to claim 17, Singhal discloses the claimed invention for the method step of measuring an axial strain in at least one of the first and second curved specimens. Rao teaches the method step of measuring an axial strain in at least one of the first and second curved specimens 24 (col. 4 lines 45-48 {Figs. 1-3}). It would have been obvious to one having ordinary skill in the art at the

time the invention was made to modify Singhal with the teachings Rao to include the method step of measuring an axial strain in at least one of the first and second curved specimens for the purpose of exerting a tensile load on the specimen (see Rao, col. 3 lines 1-5).

***Allowable Subject Matter***

6. Claims 5-6, 11-12 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The reasons for the indication of allowable subject matter are based on the inclusion of:

- a. In claims 5 and 11, *at least one strain gage adapted to be coupled to a surface of at least one of the first and second curved specimens.*
- b. In claims 6 and 12, *at least one strain gage includes at least one of a longitudinal and a transverse strain gage.*
- c. In claim 18, the method step of *measuring a transverse strain in at least one of the first and second curved specimens.*

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alandra Ellington whose telephone number is (571) 272-2178. The examiner can normally be reached on Monday - Friday, 8:30am - 5:00pm.



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9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alandra Ellington  
Art Unit 2855



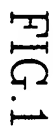
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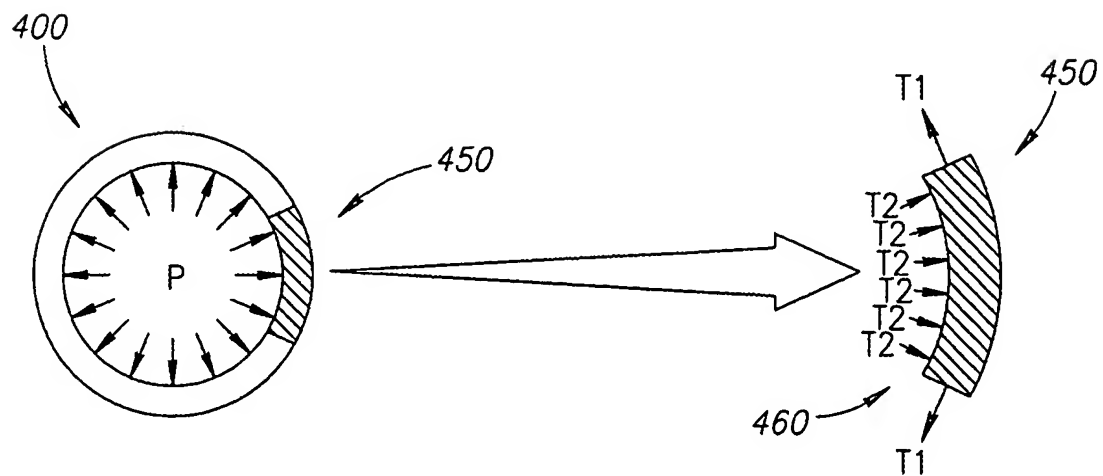
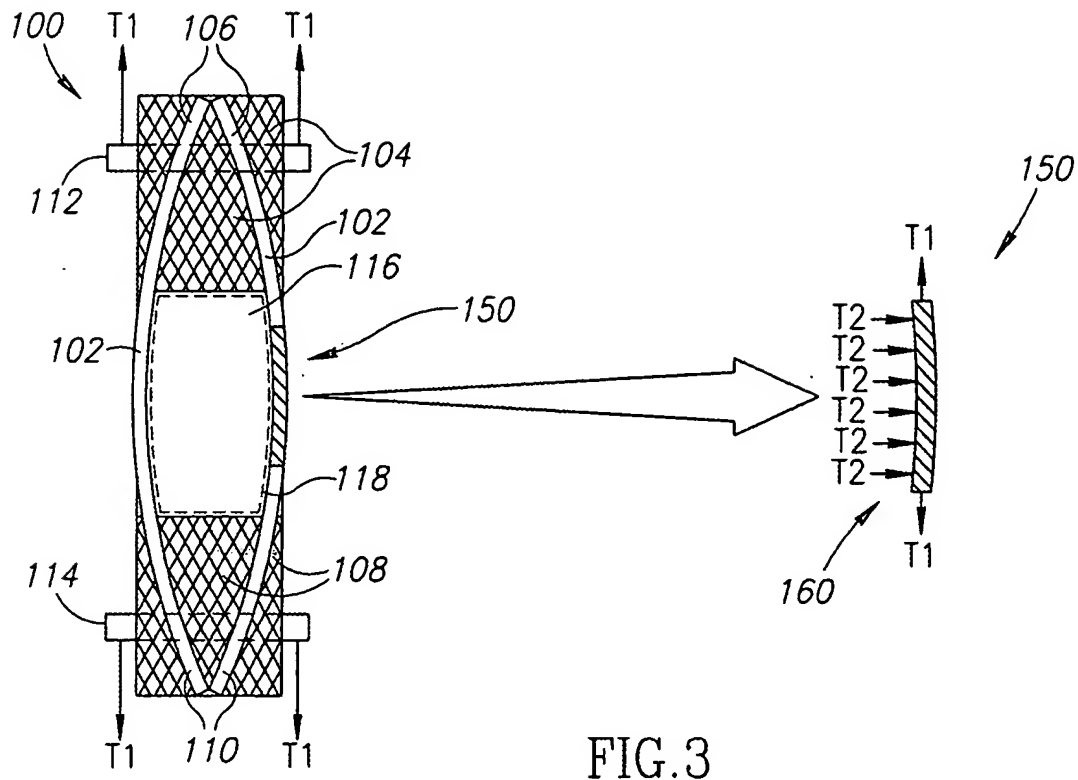
**HARSHAD PATEL  
PRIMARY EXAMINER**

Title: APPARATUS AND METHODS FOR TENSION TESTING OF  
CURVED SPECIMENTS  
REPLACEMENT Sheet 1 of 3

approved by Examiner Ellington  
7/8/05



**Best Available Copy.**



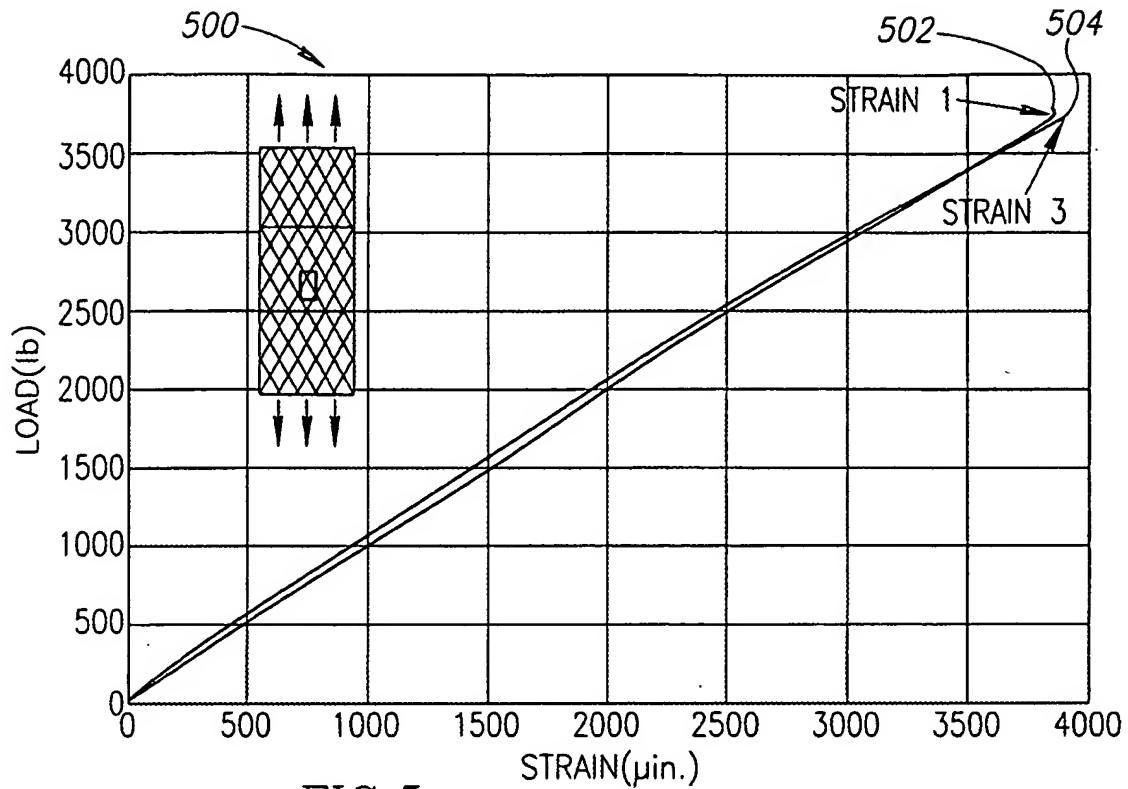


FIG. 5

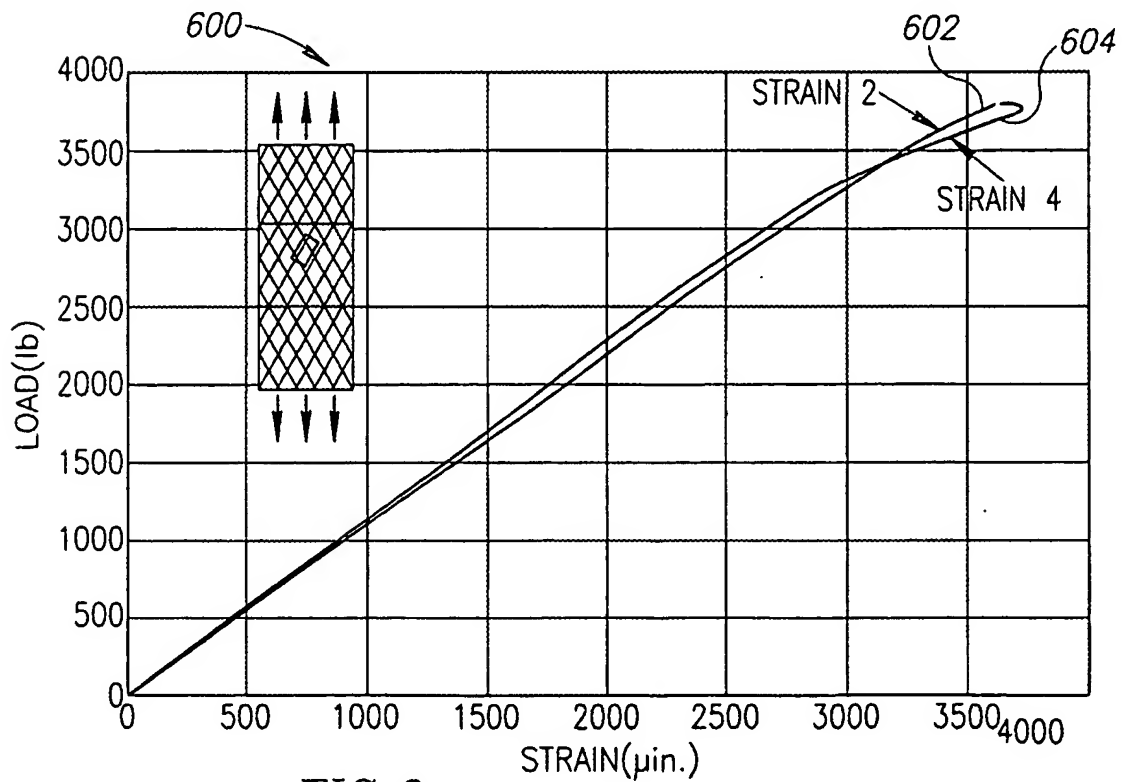


FIG. 6